



AYU WULANDARI

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Chemistry graduate with hands-on experience in analytical laboratory testing, chemical analysis, and laboratory instrumentation through internships in an industrial laboratory setting. Experienced in sample preparation, conventional and instrumental analytical methods, data evaluation, and laboratory documentation in compliance with GLP, QA/QC, and ASTM standards. Familiar with FTIR and a range of analytical instruments, with a strong foundation in analytical thinking, attention to detail, and systematic laboratory work. Holds ISO/IEC 17025:2017 certification with solid understanding of laboratory quality management principles.

Pendidikan

Universitas Jenderal Soedirman

Aug 2021 - Aug 2025

Bachelor of Science, 3.75/4.00

- Thesis: Isolation and Toxicity Evaluation of Bioactive Compounds from Ethyl Acetate Extract of Kaempferia parviflora Rhizome

Pengalaman Kerja

Balai Besar Pengujian Minyak dan Gas Bumi LEMIGAS

Nov 2025 - May 2026

Laboratory Assistant (Magang Nasional Kemnaker)

- Performed conventional chemical analysis on petroleum and petroleum products in the Chemical Properties Testing Laboratory, conducting chemical testing including acidity, TAN, TBN, RSH, H₂S, salt content, water content, sulfur, mercaptan, and Doctor Test using standardized laboratory testing methods in accordance with ASTM standards, building a strong understanding of petroleum chemical properties and behavior relevant to production and recovery processes.
- Conducted instrumental analysis in the Petroleum Composition Laboratory using GC, FTIR, XRF, AAS, and Mercury Analyzer to support compositional and elemental characterization of petroleum and petroleum products, contributing to data-driven evaluation of fluid properties essential in reservoir and recovery assessments.
- Assisted in instrument setup, operational checks, and calibration support for 3+ analytical instruments, while preparing chemical reagents and standard solutions in accordance with SOP and standard methods to ensure accuracy and reliability of analytical results.
- Supported data verification activities by assisting in the preparation of control charts to monitor analytical result consistency, ensuring reliable and traceable data for quality assurance purposes.
- Recorded testing results and analytical data accurately in compliance with SOP, QA/QC, ASTM, and HSE/K3 standards, maintaining organized and traceable laboratory documentation throughout all activities.

Universitas Jenderal Soedirman

Aug 2024 - May 2025

Undergraduate Research

- Performed extraction and fractionation of bioactive compounds from Kaempferia parviflora rhizome using maceration and vacuum liquid chromatography (VLC), followed by compound purification using radial chromatography.
- Conducted compound identification and characterization using phytochemical screening and LC-HRMS analysis to determine the chemical composition of isolated compounds.
- Evaluated the toxicity of extracts, fractions, and isolates using Brine Shrimp Lethality Test (BSLT), determining LC₅₀ values to support biological activity assessment.
- Maintained accurate experimental documentation throughout all research stages in compliance with GLP standards, and compiled findings into structured technical reports.

Universitas Jenderal Soedirman

Aug 2024 - Apr 2025

Laboratory Teaching Assistant

- Prepared and managed laboratory instruments, materials, and chemical reagents for organic chemistry practical sessions involving 120+ students, ensuring all materials met quality and safety requirements before each session.
- Guided students through laboratory experiments involving chemical analysis and reaction processes, explaining complex procedures clearly and troubleshooting issues in real time.
- Monitored and enforced laboratory safety standards and proper chemical handling procedures, ensuring a safe and compliant working environment throughout all practical sessions.

Balai Besar Pengujian Minyak dan Gas Bumi LEMIGAS

Aug 2023 - Dec 2023

Student Internship

- Assisted in conducting Bubble Test, Rotating Cylinder Electrode (RCE), and Thermal Stability Test to evaluate corrosion inhibitor performance under simulated oilfield operating conditions in accordance with ASTM standards.
- Prepared synthetic brine water, hydrocarbon test solutions, corrosion inhibitor formulations, and carbon steel specimens, including specimen preparation following ASTM G1 requirements.

- Supported laboratory testing using Gamry Reference 600, CMS DC Corrosion 105 System, and FTIR, including equipment preparation, operating test systems, and monitoring testing parameters such as temperature, pressure, pH, and CO2 saturation.
- Recorded, verified, and interpreted laboratory testing data, calculated corrosion rate and inhibitor efficiency, and prepared technical reports in accordance with laboratory SOP, QA/QC, and HSE requirements.
- Assisted in maintaining laboratory equipment, organizing laboratory work areas, and ensuring proper documentation and safe handling of laboratory chemicals and testing materials.

Pengalaman organisasi

UKM Basic (Base of English Science Club) FMIPA Unsoed

Feb 2022 - Dec 2023

Head of Secretary

- Managed administrative documentation, schedules, and reporting activities for 30+ active members and organizational programs simultaneously.
- Coordinated internal and external communication, demonstrating strong organizational and interpersonal skills in a dynamic team environment.

Skill, Languages, and Certificates

- **Technical Skills**: nalytical Laboratory Testing | Sample Preparation & Standardization | Conventional Chemical Analysis | Instrumental Analysis: GC, FTIR, XRF, AAS, Mercury Analyzer | Analytical Data Evaluation & Interpretation | Laboratory Documentation & Technical Reporting | GLP & ISO/IEC 17025:2017 Compliance | QA/QC Standards | ASTM Standards | HSE/K3 | Microsoft Office (Excel, Word, PowerPoint)
- **Personal Skills**: Analytical Thinking | Attention to Detail | Problem Solving | Independent Work | Team Collaboration | Adaptability | Discipline | Willing to Learn
- **Languages** 🌐: English (Intermediate level)
- **Certificates** ✅ (2026): ISO 17025:2017 (Laboratory Management System)
- **Certificates** ✅ (2025): Pelatihan Keselamatan dan Kesehatan Kerja (K3) bagi Mahasiswa Kimia Unsoed